

Environmental Review Form for Argonne National Laboratory

Click on the blue question marks (?) for instructions, contacts, and additional information on specific line items.

(?)**Project/Activity Title:** Refurbishing of the Quantum Design SQUID Magnetometer

(?)**ASO NEPA Tracking No.** _____ (?)**Type of Funding:** _____
B&R Code _____

(?)**Identifying number:** _____ WFO proposal # _____ CRADA proposal # _____
Work Project # _____ ANL accounting # (item 3a in Field Work Proposal) _____
Other (explain) _____

(?)**Project Manager:** Wai Kwok Signature: Wai-Kwok Date: 2/28/11

(?)**NEPA Owner:** Mark Kamiya Signature: Mark Kamiya Date: 2/28/2011

ANL NEPA Reviewer: M. A. Kamiya Signature: M. A. Kamiya Date: 2/28/2011

I. (?)**Description of Proposed Action:** The twenty year old SQUID magnetometer is not working and it will be sent off-site for refurbishment. The manufacturer will service the magnetometer back to working condition. The 5 Tesla superconducting magnet will be replaced with a 7 Tesla superconducting magnet. The electronic control boards will be updated as well. The magnetometer is used for exploring and understanding vortex behavior in confined geometries of superconducting/ferromagnetic hybrid materials. (Work covered under NEPA entry #1136). The magnetometer will be shipped back and returned to service by Argonne staff.

II. (?)**Description of Affected Environment:** This piece of equipment is located in Building 223, room B018.

III. (?)**Potential Environmental Effects:** (Attach explanation for each "yes" response. See Instructions for Completing Environmental Review Form)

A. Complete Section A for all projects.

1. (?)Project evaluated for Pollution Prevention and Waste Minimization opportunities and details provided under items 2, 4, 6, 7, 8, 16, and 20 below, as applicable. The equipment is being refurbished instead of buying a new magnetometer. Yes X No _____
2. (?)Air Pollutant Emissions Yes _____ No X
3. (?)Noise Yes _____ No X
4. (?)Chemical/Oil Storage/Use Yes _____ No X
5. (?)Pesticide Use Yes _____ No X
6. (?) Polychlorinated Biphenyls (PCBs) Yes _____ No X
7. (?) Biohazards Yes _____ No X
8. (?)Liquid Effluent (wastewater) Yes _____ No X

9. (?)Waste Management

- a) Construction or Demolition Waste Yes ___ No X
- b) Hazardous Waste Yes ___ No X
- c) Radioactive Mixed Waste Yes ___ No X
- d) Radioactive Waste Yes ___ No X
- e) PCB or Asbestos Waste Yes ___ No X
- f) Biological Waste Yes ___ No X
- g) No Path to Disposal Waste Yes ___ No X
- h) Nano-material Waste Yes ___ No X

10. (?)Radiation Yes ___ No X

11. (?)Threatened Violation of ES&H Regulations or Permit Requirements Yes ___ No X

12. (?)New or Modified Federal or State Permits Yes ___ No X

13. (?)Siting, Construction, or Major Modification of Facility to Recover, Treat, Store, or Dispose of Waste Yes ___ No X

14. (?)Public Controversy Yes ___ No X

15. (?)Historic Structures and Objects Yes ___ No X

16. (?)Disturbance of Pre-existing Contamination Yes ___ No X

17. (?)Energy Efficiency, Resource Conserving, and Sustainable Design Features Yes ___ No X

B. For projects that will occur outdoors, complete Section B as well as Section A. N/A

18. (?)Threatened or Endangered Species, Critical Habitats, and/or other Protected Species Yes ___ No ___

19. (?)Wetlands Yes ___ No ___

20. (?)Floodplain Yes ___ No ___

21. (?)Landscaping Yes ___ No ___

22. (?)Navigable Air Space Yes ___ No ___

23. (?)Clearing or Excavation Yes ___ No ___

24. (?)Archaeological Resources Yes ___ No ___

25. (?)Underground Injection Yes ___ No ___

26. (?)Underground Storage Tanks Yes ___ No ___

27. (?)Public Utilities or Services Yes ___ No ___

28. (?)Depletion of a Non-Renewable Resource Yes ___ No ___

C. For projects occurring outside of ANL complete Section C as well as Sections A and B.

29. (?) Prime, Unique, or Locally Important Farmland Yes ___ No X
30. (?) Special Sources of Groundwater (such as sole source aquifer) Yes ___ No X
31. (?) Coastal Zones Yes ___ No X
32. (?) Areas with Special National Designations (such as National Forests, Parks, or Trails) Yes ___ No X
33. (?) Action of a State Agency in a State with NEPA-type Law Yes ___ No X
34. (?) Class I Air Quality Control Region Yes ___ No X

IV. Subpart D Determination: (to be completed by DOE/ASO)

Are there any extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal? Yes ___ No X

Is the project connected to other actions with potentially significant impacts or related to other proposed action with cumulatively significant impacts? Yes ___ No X

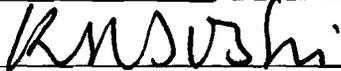
If yes, is a categorical exclusion determination precluded by 40 CFR 1506.1 or 10 CFR 1021.211? Yes ___ No ___

Can the project or activity be categorically excluded from preparation of an Environment Assessment or Environmental Impact Statement under Subpart D of the DOE NEPA Regulations? Yes X No ___

If yes, indicate the class or classes of action from Appendix A or B of Subpart D under which the project may be excluded. Appendix B B 3.6 Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects

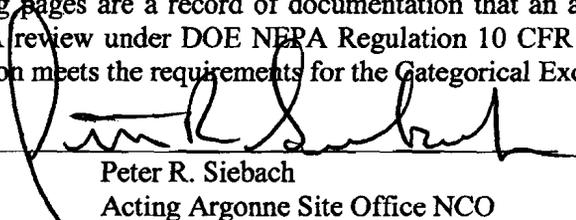
If no, indicate the NEPA recommendation and class(es) of action from Appendix C or D to Subpart D to Part 1021 of 10 CFR.

ASO NEPA Coordinator Review: Kaushik N. Joshi

Signature:  Date: 3-1-11

ASO NCO Approval of CX Determination:

The preceding pages are a record of documentation that an action may be categorically excluded from further NEPA review under DOE NEPA Regulation 10 CFR Part 1021.400. I have determined that the proposed action meets the requirements for the Categorical Exclusion identified above.

Signature:  Date: 3/3/11

Peter R. Siebach
Acting Argonne Site Office NCO

ASO NCO EA or EIS Recommendation: *NA*

Class of Action: _____

Signature: _____

Peter R. Siebach
Acting Argonne Site Office NCO

Date: _____

Concurrence with EA or EIS Recommendation: *NA*

CH GLD: _____

Signature: _____

Date: _____

ASO Manager Approval of EA or EIS Recommendation: *NA*

An ____ EA ____ EIS shall be prepared for the proposed _____ and

_____ shall serve as the document manager.

Signature: _____

Dr. Joanna M .Livengood
Manager

Date: _____